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Log of a
Trading Voyage, 1830-31
Steamboat Pendleton
Capt. J. Howland

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40/3

Journal of a Rout from Savannah to Darien & up the river Oakmulgee & Back from whence we came On Board Steam Boat Pendleton J. Howland master

24 Decm 1830 Commences with fresh gales & Clear weather at 9 am left Savannah in the Steam Boat Pendleton. a Cargo Consisting of Salt & Sugar at 3 PM came to anchor at thunder Bolt in Consequence of a heavy Blow from the South at 5 do Raisd Steam & Started at 7 do Came to anchor just below the mouth of the new paſsage. So ends this day with Cloudy weather

25th Commences with fresh gales & Cloudy weather at 4 am high water in consequence of high winds we were prevented in going through the new paſsage at 7 do moderate at 3 PM Raisd Steam & went through the paſsage at 11 do Crosd St Catherines Sound the day ends in fine pleasent weather

26 Sunday Commences with pleasent weather at 1 am Stopt at St Catherines Isld & landed goods for George M Waldburg at 11 am Arivd in Darien. the day ends in fine pleasent weather

27 Monday Commences with fine Clear weather took on board 205 Sacks of Salt & 14 Cords wood got all ready to Start up River this day ends in fine pleasent weather

Decm
28th 1830

Tuesday Commences with thick foggy weather
at 7 Am Raisd Steam & Started in the
fogg although the River not more than 100
yds wide Could not See Either Side of
the River before we ran into the Banks
& had much trouble before we got out
into the Main River. I say Main river becau
Darien River is only a Small branch of the
Altamahaw river at 9 Am the fogg Cleard
of & we are now in the Main River going
Rapid up Stream. at Noon past Clarkes
Bluff 12 Miles from Darien at 3 P.M
went through Brick yard cutt it is very
narrow which causes a Rapid tide to run
through it at ½ past 3 do past fort Barington
24 Miles from Darien at 5 do past the lower
Sansavilla at ½ 5 past the uper Sansavilla
here the current was so rapid that we got stern
way Several times but succeded in goin by
in Raising all the Steam the engine could
bear at ½ past 6 do past the Plumb Orchard
at 20 minutes of 9 past the Sister pines it is
known by three pines trees in the form of
a triangle & Situated on the left hand in
going up at 11 Entered Little Hell so ends
this day. P.S. Pin Halloway Creek is at the
entrance of L Hell & it is a common Saying
that if you shoulder land & go a Short distance
into the Woods & Just Rattle the Bay leav
that you will Soon be surrounded by girls
barefooted & Said to have feet as broad as
horse feet.

Wednesday 29 Comenses with fine pleasent
Weather At 8 A M. pole bat Superior J T Rowlands past
us bound down river At 2 P M. 6 Rafts of Timber past a Mr Mea
flatt of Cotton At 8 P M Repaired Damages

Thurs day 30 At 7 a m Raised Steam At ½ past 7 do cast off At 9 past 3 Tyger Bluff
At 11 Do Entered Steam Boat Cutt At Noon got safely through Bu
Entering the Main River the current struck the Starboard Bo
& Whirled her Down the Old River head Foremost & Struck a
a Snag which come near Sinking us We were compelled to
let our anchor go to fetch her head up stream we immediately hove
up our anchor and Proceeded on At 3 P M. past the Upper Sav
~~avilla~~ Tyger Bluff where Mr Griffen left his Flatt last Jan
ary loaded with Cotton it is 4 miles from Steam Boat Cutt a
5 Do past Hannah Islands which is ¼ mile round here the Nar
rows End at 6 past Lake Bluff at 7 passed Point Pull away
on our left Hand a rapid current at 9 Stopt at Doctor Town Bluff
& Took on Board 4 Cords of wood this is the most Elevated Blu
ff we have seen since Leaving Darien we are now 19 miles from
S. B. Cutt. the reason of our not running untill 12 was that
3. the Packing of our steam pipe joint burnt out consequently
we were to Blow nearly nearly all the Steam off Before we
could pack her which brought at 12 oclock the Engine has worked
very well this Day So Ends there 24 Hours with fine pleant weathe
it has the Appearance of rain As it lightens to the Westward

Friday 31st Commences with Cloudy weather at 2 A M heavy showers
of Rain At ½ past 6 started At ½ past 8 past Beeg hes Bluff it has
an Elevation of 40 feet and Stands on the West side of the river it
is 3 miles above D Town Bluff At 10 minutes of 9 past Gore Creek
Bluff the Boat Pilott with Cotton wilcox patroon. Clear weather
with a heavy N W wind & Cold this Bluff is 2 miles from the last
here the Current was so rapid that were 20 minutes in going twice the length
of the Boat we were Obliged to drop back some distance they give
her all the power of the Engine a few rods above the point Passed the
Boat Rebecca with Cotton was oblige to take up for fear of comi

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in Contact with each other. At 11 entered Oswells cutt the distance is about a half of a mile through and is formed by an island which is left on the right. At this place the current was very rapid. At 1/2 past 12 P.M. Came up with Oglethorpes Bluff it has a very handsome appearance on account of Such a variety of Colours and there is an Elevation of [illegible] 80 Feet at 1/2 past " Do went through Yankee Reach which is about one mile in length at 1/2 past 2 passed 5 mile lake at 3 Do passed the Upper End of Marrowbone point at 5 Do past Beards Bluff which is low and Sandy a store is erected on the Edge of the Bank and a dwelling house a Short Distance back The Savannah Canal Enters the Oakmulgee at this Bluff at 7 do stopped at Fort James and took on Board 2 Cords of wood this Bluff is about a hundred feet high here is the first rocks that we have discovered Since Leaving Darien So Ends this day with fine clear weather

1st of 6

1st of January 1831. This day Commences with fine pleasant weather there is not a cloud to be Seen the bright moon & Stars are guiding our Course up a rapid stream at 4 A M left the Bluff at 1/2 past 6 passed Steuben Gum point at 8 passed the boat Blackbird At 9 Do passed Medlocks Reach 1 mile in length at 1/2 past 10 past the Lower Sister Bluff " past the Boat Franklin Bound to Hawkensville at 11 do past the uper Bluff they are one mile & half distance from each other & varying in height from 20 to 60 fee & Coverd with tall Slender pine trees at Noon past Carters Ferry at this place the land is verry Low & nearly overflowd with water the river is 8 feet high than a comon boating river & Still arising. here we past the Boat Vice President Capt Pitcher

& the Boat Clinton with Cotten Bound to Dorien Just above the latter we past 2 Canoes a towing 3 Bales Cotten to the Clinton which had been knock of by a tree at 1 PM past the Hoopey River the entrance is about 60 feet wide & is on the North Side of the River at 3 do Stopt at white Bluff & took on Board 189 Sacks salt 29 Bags Coffee. this is a Short low Bluff & Situated on the Same Side as the Hoopey at 6 do Started at 9 do Stopt at Iron mine Bluff in Coopers Reach & took on Board 6 Cords wood this Bluff is 4 Miles from White Bluff & Rises gradually to an elevation of 40 feet at ½ past 11 do finished taking in wood So ends this day with Clear cold Weather

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2d Jan Commences with Clear weather & Cold at 12 left the Bluff at half past 12 on arriving at the uper end of this reach we had to pass close to the Banks on the Starboard to avoid a large bed of dangerous Rocks & on turning the point the curent was so Rapid that it gave us Stern way & caime near Sweeping us on ledge of Rocks. Consequently we were Obliged to Run our tow line the whole length round the point & make it fast too a tree then fetch it on Board & with ten Men to the Captsain they hove up to the tree where the line was fast Ran it out again & hove up to it which enabled us Strike the Edy there on the opposite Side & proceed on. the curent I should think ran 7 knots pr hour which detaind us 2 hours in getting round at 3 Came up a thick fogg consequently we were compeled to Stop ran along Side of the Bank & made fast to a tree at 7 am Cleared of Raisd Steam & Started Just as we cast of the engine made a few revolutions Ran down on her lower center & Stopt as we could

could not gain the bank to make fast we wer oblig to let go our anchor. & run the risk of its hooking to a Log. all the Steam was Blown of to ascertain the Cause took off the head of the Cylinder & repack it opened the top Steam valve & found it full of packing which was blown from the uper Socket Joint that being improperly fixd and destitute of a lead Ring that should have been put in the Bottom of the Joint to prevent the packing blowing through at 2 PM Raisd Steam & Started at 3 Pm went through Hell Throat reach which has a number of large Rocks in it the most dangerous one lyes half the length of the reach & nearest on the Sout Side here we discover the river Just begins to fall at ½ past 4 do past Buck Horn Bluff which is Low & Situated on the left hand at ½ past 5 past Seine Beach & Jack Sharp timber Yd. at ½ 7 past Cobbs Creek which lyes in the Right Side at 8 do past the Lower end of the Golden Grove sand which is 2 Miles in lenght on a regular round at at ½ past 9 Went through Adams reach which is 3 Miles in length & verry Strait at 10 do Stopt along side the bank for the night the day was in fine pleasent weather

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3d Jan 1831 Commences with Cloudy weather at ½ past 6 Am Raisd Steam & Started at ½ pa nd 7 passed Manns Bluff this bluff is elevatated about 30 feet Here the river for a mile is full of rocks a few rods above the landing is a very large rock on the bank called the falling in rocks at this place the current is very rapid passed Tom Knights Flatt with cotton at this place At 10 Do past Inglis's old field situated on the East side of the river it is known by a live Oak & Cedar

Tree on the bank about the middle of the Reach at ½ past 10 passed Oaky Drive at ¼ past 11 passed Milligans Timber ~~yard~~ Bluff at 10 minutes after 12 passed Hall ferry this reach is 2 miles in length at at 2 P M passed Half Moon Bluff and also mr S L Yonge & Sons Hall of Cotton this Bluff is elevated about 12 feet at 3 P M arrived safe at Town Bluff a passage of 6 days all well Town Bluff is about a ½ of a mile in length and Elevated about 20 Feet above the level of a common boating river We discharged 20 Sacks of Salt took on board 4 cords of wood visited by a number of Ladies & Gentlemen Lashed the Red Rover along side Captain McCommick at 5 P M left Town Bluff with the intention of going to Hawkinsville ½ past 5 passed Berry hill field.

~~Thursday January 6th commence with fine pleasant weather & Heavy frost at ½ past 7 A M~~

4th Janury 1831. Commences with Cloudy weather and a strong appearance of Rain at 8 A M got up steam & started in a few minutes Entered the Oakmulgee River its mouth is about 100 yards wide & tends S W. On the right hand enters the Oconee which leads to Milledgeville at 9 o clock A M. Entered the Fryingpan here the current was so rapid that we were obliged to run our Tow line out the whole length I then had ten men at the Capstone heaving and got on all the steam that we could get and made out to get through it rains now in torrents here Mr Hussey our Engineer was taken unwell & Mr Peck our Mate had to work the Engine for the first time & Succeeded very well. which enabled us to reach Duins Landing at 3 P M which is only 6 miles from the forks of the river the Head of the Cylinder leaked so much Steam that we were obliged to Hoist off our Cylinder head and pack the Cylinder At 8 A M 3 men Came on board and informed us that Mr Griffins Boat the George Canning was tied up at the Lower Sansavilla in Consequence of not having a sufficient number of Men and that they had left her with the intention of meeting mr Griffin at the Steam Boat

So Ends this 24 Hours with Rainy weather

Wednesday 5th Commences with Rain at Daylight it ceased and we packed over 2 Sockett Joints at 9 Do Got up steam and tried the engine whilst the Engine was working the Sockett Joint gave way the hot water pump would not work and Consequently we were obliged to blow off all of the Steam and take out out the plunges and all the packing out of the Sockett joint and make a lead ring to put in the bottom and pack her again at 11 A M. Repaired Damages ~~[illegible]~~ and at 1 o clock Raised Steam & Started At 2 P M past Ferry the place where the boat Munroe was sunk last Spring Loaded with Grocerys At 5 Do Stopt for a few minutes at Wood Landing and bought 2 Doz Fowls At ½ after 5 Do passed by the Mouth of the little Oakmulgee at 6 stopped for the night just below White Bluff So Ends this Day

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Thursday January 6 commences with fine pleant weather at ½ past 7 A M past White Bluff and the Cotton boat Henry Captain Wilcoy this Bluff is Elevated about 30 Feet and is on the North Side of the river passed 2 Cotton Boyes about 1 mile above From the reach above Whete Bluff it varys 16 points of the Compass from West to East to the one below At ½ past 8 past Robsteads Cotton Boat & also past Hubbards Shoals At 10 past Boils old Field At ½ past 11 past Birds old Field this place is 35 miles from the forks of the River At 2 P M Stopped at Loves Ferry and Sold 3½ bushels of Salt for 7 Turkeys At ¼ after 2 left Loves Ferry and Come up with the first Seventh Hungry Point the width of the stream 140 Feet At ½ 3 got through the 7 Points at ½ past 4 stopt at Blands Wood Landing and took on board 11 cords of wood & packed the Cylinder bought a quantity of Fowls and Sold some Coffee. So Ends this 24 Hours with fine plasan weather

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Friday 7th 1831. Commences with Rainy Weather at 7 A M got up steam & Started at 9 do past Horse Creek at 10 Stopt Raining at 11 Arrived at Ashleys Bluff where we were compelled to Stop for Packing boards for the Red Rover at 3 took in our boards & Started at 4 past Mussel Bluff at ¼ 4, past Rocky Hammock at 5 Arrived at the upper End of of Ashleys Old Field at 6 Stopt for the night So Ends this 24 Hours with heavy rains

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Saturday 8th 1831. Commences with Heavy Showers at 7 A M Got up Steam & Started at ½ past 8 went through Chicken Cut very good so far Except the Frying pan & [illegible] with a fine Rain; past Coffees Lower Field At Noon arrived at Coffees Bluff Stopt & Took on board 4 Cords of wood at ½ past 1 Started at ½ past 2 went through Rattle Snake Cut here the Current is very rapid River very high & Still a Rising at ½ past 2 past Barrows Bluff at 3 past Lambkins Lower Field at ½ past 4 past a cotton Box belonging to Messrs Day & Butts at 6 Do came too at Swains Field So Ends this Day with Rain

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Sunday 9th Commences with Rain at ½ past 8 A M Raised Steam & Started At ½ past 9 went through Sroggins Cut past Tin Cup point very Crooked & Narrow it is one reach below Telfair Court House at ½ past 10 past the Bluff at Noon past Moberlys Bluff the river about 150 feet wide at ½ past 12 came up with the Lower End of Moberlys Bluff & Stopt for Provision at 4 do left the Bluff at 6 Do came too for the night along side of a Cypress Swamp So Ends this day with Cloudy weather.

Monday 10th 1831. Commences with Rain at 7 Raised Steam & Started at ½ past 7 A M went through Oppossum Cut at 9 Do went through Fodder Stack at this Cut the Red Rover Separated from us at 10 stopt at Lambkins Field and took on board 4 & ½ Cords of wood at 11 Started Strong Appearance of rain at 12 went through Sycamore Cut for the most of the river 100 ft wide at 1 P M. past the Lower Seventh Bluff on our Left hand the Current very Rapid; past Goddards Cotton Box bound down river we are now half of the distance from the forks of the river to Hartford passed the Second third fourth fifth Sixth Seventh Hungry point At 3 past Sugar Loaf point at 4 went through Fletchers Cut at 5 went through Sunday Cut at ½ past 5 went through Mossy Log Cutt here the river is very narrow & Crooked

at 6 Stopt for the night just above Mossy Log Cutt the river for a considera ble
ways back is very narrow & Crooked & varying [illegible] all points of the Compass
and our 130 ft wire So Ends this day with fine pleasant weather.

Tuesday 11 commences with pleasant weather at 7 Raised Steam & Starte
at 20 minutes of 8 passed widow Griffins Old Pole at 8 past the [illegible]
Ness which are 2 Shorts points difficult to pass At ½ past 8 passed
Messrs Georges Boat Citizen Bound to Macon At 10 went through
Round Tree Cutt we were 15 minutes going through At 11 past Henrys
Landing, At Noon passed Mac Duffie Swimming Pen the river for 3
miles past is tolerable good at 20 minutes past 12 passed the Cotton Boat
Thomas Spalding and Elizabeth At 1½ P M Stopt at Jonans Bluff
& taken Wood 5 Cords & were Stopt for the remainder of the Day to
pack the Cylinder &c we were visited by a large number of People
at 6 P.M made a large fire on the bank near a large tree under
which the Steward Spread his table Cloth & prepared
a fine Supper & with my Crew & Several Gentlemen
that Came to visit us. Sat down & enjoyed ourselves
until over a Cup of good Tea. At this Bluff the
William Gaston hauled up last winter for Six weeks
in Consequence of a low River could not proceed
any further, we are 73 Miles from Hawkinsville
This day ended fine pleasant Weather

Wednesday 12th Commences with pleasant weather
at 7 Am Raised Steam & Started at 8 Came up
with Stalem Shoals at ¼ 8 passed the Little Round
point at 9 passed that known Bluff 5 miles
from the Bluff we Started from at ½ 9 went through

Flatters Cutt. It is 60 feet Wide & 900 feet long
the River for 2 Miles below this Cutt is narrow
& verry Crooked varying to all points of the compass
at half past 10 do past poor Robin Bluff on
our left. one Mile above this Bluff the river
is verry intricate it is not more than 60 feet wide
& varying to 40 points of the compass at 11 do past
Mayes Lower field at ½ past 11 past the uper
field, just above this we past a verry difficult
bend full of Snags which will trouble us in going
down Stream, at half past 12 past Atkinsons
Ferry on our left, we are now 20 Miles from
Jordans Bluff at ½ 1 do past Brinson Store
Landing at 2 do past Phelps landing where Mr
Griffin had engaged Wood but there being only
one Cord we would not Stop for it, at 5 do
past the Head of the River at dark came
too for the night a few Rods below Mitchels
Cutt, from the head of the River to this Cutt
which is about 3 miles the river very good
this day ends in fine pleasant weather

Thursday 13th Commences fine Clear
weather with a heavy frost at 5 Am discovered
a Blazing Star in the S E about 36 degrees
above the Horizon at Daylight the Pilot
& myself tooke the boat & Sculled into the Wood
where we discovered a number of wild Turkeys
Setting on the tall Cypress tree we each of us
took a Turkey [illegible] fire & both Missed. come back
to the Boat at 7 am Raisd Steam &

Struck in a few minutes Entered Notched
Cut at half past 7 went through at 9 do, past
the great Round O bend at 11 do past
Breeds Ferry at Noon past Boons Fie
at 1 P.M. past the Seven Sickamore branch, past
at 3 do Arrived at Hawkinsville Safe without
Sustaining the least Injury a passage from
Town Bluff 9 days & from Darien 16 days
In the course of the afternoon we were visited
by upwards of 200 persons of all Ranks which
takes in prostitutes, but our being Strangers to
most of the Inhabitants we were not aware of
it untill they had left the Boat, Hawkinsvil
is Situated on the left hand Side of the River
it has an elevated Bluff composed of Lime Stone
about 50 feet high it is a newly Settled place
& contains Seven Store one Story high. one
publick house & Several dwelling houses it
increases very Rapid in trade. Harford is
Situated on the opposite Side of the River
about half a mile Above, the bank of the
River about 15 feet high the town Contains
two Stores, one Publick house, for boarding
one Publick Brick house of Ill fame & two
dwellin houses & one large 2 Story house built
for a Tavern. unhabited & going to Ruin,
& likewise the whole place in consequence
of Hawkinsville taking the trade away
at 5 P.M. Commenced Raining the day was fine
Time.

Friday 14th Commences with heavy rains at 11 A.M. Ceased Commence Loading the Velocity with Salt at 3 P.M. heavy Showers of Rain at 11 P.M. Cloudy So Ends this Day.

Saturday 15 Commences with Cloudy weather at 7 A.M. Commenced Discharging Taken on board a number Hides and Several Bales of Cotton So Ends this Day.

Sunday 16 Commences with Clear weather & very cold at 2 P.M. left Hawkinsville with a number of People on board to go Down the river about 11 miles got there Safe and Took on board 10 Cords of Wood and Returned So Ends this day.

Monday 17 Commences with Clear Weather Discharged the remainder of our Salt and took on board a quantity of Cotton So Ends this Day

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Tuesday 18 Commences with Clear Weather & Cold at 2 P.M. finished taking in our Cotton Consisting of 333 bags at ½ past 2 Started Down River at 5 P.M. Stopt just Below Mitchells Cutt for the night So Ends this Day.

Wednesday 19 Commences with fine pleasant weather at 8 Raised Steam & Started at ½ past 9 Stopt at Bryans White Bluff to repair the [illegible] at 1 P.M. Started at 3 passed Phelps Bluff run into the Bank and broke our Larboard Wheel House in a number of Places at Widow Brensons wood landing at Sunset Entered [illegible] nearly to the lower End and Stopt for the night So Ends this day

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Thursday 20. 1831. Commences with clear weather at 7 A M raised steam and towed out a barge by that lay across the Stream at 9 Stopt at Jordans Bluff & took in board 5 cords of wood at 10 left at ½ past 10 passed the pole boat Blackbird bound up to Macon at 11 Stopt to repair our Engine at 2 [illegible] the Steam Boat Governor Troup in passing with 2 tow boats bound up river at ½ past 2 Got up Steam & Started at 20 minutes of 3 went through [illegible] Cutt passed the Pole Boat No 1 & Cassell just Below 3 the rack below Eagles Nest passed the President, at 4 went through [illegible] Cutt, at ½ past 4 went through Sunday Cutt, in a few minutes went through Fletchers Cutt, at 5 passed the pole Boat Superior, at Sunset Stopt at the first 7 mile bluff for the night ~~Friday~~ & So Ends this Day

Friday 21. 1831. Commences with clear weather at ½ past 7 Cast off from Hollinsworth Ferry at 8 Commenced raining ½ past 8 past the last 7 mile Bluff at 9 went through Sycamore Cutt, at ½ [illegible] 9 past Tumbkins Field ~~&~~ Arrived at Soldier Town Cutt turned the boat round & drop her through Stern fore most this is the most diff[illegible]cult Cut that we had to Encounter with At ½ past 10 through Opossum Cut At ½ past 11 Moberlys Bluff At 12 Stopt at Telfair Court House took on board 3 Cords of wood at 1 P M left the Bluff and passed Pin hook point at 2 Passed Swains Landing ½ past 2 Passed Tumbkins Lake and Blackshears Trail at 3 P M went through Rattle Snake Cutt come up with Coffees Bluff a few reaches Below Got swept into a Cite knocked off 3 Bales Cotton Came through Chicken Cutt at 5 past Cotton boy Point ½ past 5 passed Hickory Hammock at 6 past Ashleys ferry and hauled up for the night So Ends this day

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Saturday 22. 1831. Commences with rain at 7 A m raised Steam and Started at ½ past 7 passed Ashleys ferry at 8 passed Cone Creek at ½ past 8 passed Blands old Field at 20 minutes of 9, passed the first 7 m

At 7 past the last seventh Hungry point, the Seven points are very difficult to turn soon in consequence of being so short at 9 past [illegible] [illegible] this round [illegible] from N W back to South at 10 past Bolles [illegible] at ½ past 11 past White Bluff at 11 Stopt at ~~do~~ a [illegible] in consequence of fixing our Engine At ½ past 1 left at 2 passed Quinns [illegible] [illegible] the 2nd reach below passed the pole boat [illegible] President Capt [illegible] At ½ past 2 passed the Sloping [illegible] and at 3 Do Entered the [illegible] or [illegible] [illegible] at ½ past 3 Arrived at [illegible] Bluff And after our Arrival here took on board 200 Bags of Cotton So Ends this Day

Sunday 23d 1831. Commences with Cloudy weather at 7 A.M. Commenced Loading with Cotton at 2 P.M finished taking in Cotton at 4 finished taking in our Wood So Ends this Day with fine weather

Monday 24. 1831. Commences with Cloudy weather at ½ past 7 Raised Steam & Started at 9 Passed the Oaky Grove at ½ past 9 past the Fallen in Rocks at 10 come up with the upper End of Golden Grove at 10 minutes past 10 past Cotton Creek at ½ past 11 passed Jack Sharps Timber Yard at 11 passed the Pole boat Rebeccah and Copper Boat at ½ past 11 passed Buck Horn Bluff and Hell Shoals at Noon past Iron Mine Bluff the head of Copper Reach 2 miles in length at ¼ past 12 past White Bluff just below passed the pole Boat George Canning at 20 minutes at 1 passed the Chickey river at 1 P.M passed Carters Ferry at ½ past 1 past Stuben Gum points at 3 Arrived at Fort James and took on Board Cords of Wood So Ends this Day with fine Pleasant weather

Tuesday 25th 1831. Commences with fine weather at 7 finished taking in Wood & Started at 20 minutes past 7 Past Beards Bluff at 8 past the [illegible] point 5 mile Lake & Yankee Reach ½ past 8 past Cypress Bluff just below the Bluff is Stricklands Wood Landing at 10 minutes of 9 passed Goose Creek Bluff at 11 minutes past 9 past Berghes Bluff

At ½ past 9 past Tools Town Landing a 11 past Lake Bluff the rain commences here a 25 min past 10 past Hannah Island 5 miles from Steam Boat Cutt at ½ past 10 passed the Clinton a 20 minutes of 11 past the first Tyger Bluff a ¼ past 11 Entered the Cutt had to Drop ½ way Down for mast Got Safely out at 12 a 1 Mile at this Cutt overlook the rise of the river at ½ past 12 past the last Tyger Bluff 7 in number a 20 min of 1 Entered Little Hell a 1 Past Pin hollow way creek the Entrance of Little Hell & also past the Entrance of the Narrows at ½ past 1 past Watermelon Creek at 2 Past the lower Sansavilla 4 Past the Thomas Spalding at ½ past 2 past Fort Barrington 20 min of 3 went through Brick Yard Cutt a ½ past 3 past White Chimneys a 4 past Wesley Horn point a 5 P.M. Arrived Safe in Darien after an absence of 4 Weeks our Passage from Hawkinsville of 4 days and from Town Bluff to Darien 2 Days making it from Hawkinsville to Darien 6 Days So Ends this day in fine pleasant Weather

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Wednesday February 26. 1831. Commences with fine pleasant weather at 8 A.M. Raised Steam & Started Proceeded on to New Passage and Came to an ancher So Ends this 24 Hours

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Thursday 27. 1831 Commences with fine weather at 5 A.M raised Steam & Started and Proceeded down at ½ past 11 arrived Safe at Savannah after an absence of 5 weeks So Ends this Day

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~~Second Of a voyage from Savannah to Town Bluff and back~~
~~again Left Savannah~~ ~~[illegible]~~ Friday ~~February 18. 1831.~~
Proceeded on So ~~Ends this Day~~

Febuary 6 Comenses with Cold Cloudy weather with heavy Gales from N E at 8 Am Comend Snowing at 9 a verry thick Snow Storm at 1 PM ceasd but wind Still increasing at 2 do Showrs Rain at 6 do ceasd raining this day ends in heavy gales and Cloudy weather

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Feb 11 comenses with & ends in fine pleasent weather at noon left Savannah for Darien & Town Bluff with no Cargo for reasons which I cannot account for, but Shall know on our arival there at 5 PM went through the new passage at 10 Stopt a few Moments at Mr Ubalaburgs at 12 went through the English Cutt So ends this day fine weather

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12th Comenses with fine pleasent weather wind at N at 5 Am entered Darien River at 7 do arivd at Darien took on Board 7 & half cords of wood So ends the day the Steam Boat Govnr Tayler with 2 tow Boats arivd at 5 PM from up River

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Sunday
13th All this day [illegible] fresh gales from N E & Cloudy

14th All this day verry heavy Gales from N E & Cloudy took on Board 4½ Cords wood

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Tuesday 15 Comenses with light winds from N E & flying Clouds at 8 Am Rain Storm & Started at Noon pasd Clarkes Bluff & Lamars boat with

With Cotton at 4 PM past Fort Barington at 5 ac
past Plumb orchard & the Boat Black Bird
& Boat Eclipse booth ownd By Day & Butts with
Cotton for Darien at 6 ao Ran along Side of the bank
of the River made the Boat fast to a tree for the
Night Wind SE & Cloudy appearance of a Storm
So ends this day, a verry rapid Curent the River 3 feet
higher than when we past Before

Wednesday 16th Commences with foggy weather at 6 AM Rai
sed steam at 7 Entered little Hellgate commenced raining at 1/2
past 7 got through at 20 minutes after 8 AM passed the mouth of
Steam Boat Cutt at xxx 10 passed the upper end just above passed a
Cotton Box at 1 oclock passed Hannah Island 1/2 past 2 passed Point
Pullaway at 3 Stopt at Doctor Town and took on board 4 cords
of wood at 20 minutes of 4 left, at 5 pass Berglis Bluff at 11
minutes after 5 passed Coffee Creek Bluff 1/4 after 5 Took up for
the night So Ends this Day xxx instead of going through Steam
Boat Cutt we concluded to try to go round the old River &
Succeeded verry Well although the distance is twice as far
& quite narrow the least water we had was 5 1/2 feet
Just after passing the upper end of Steam B Cutt. passd Capt Goerne

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Thursday 17 Commences with clear weather at 6 Raised Steam & Started
at 11 minutes of 7 passed Oglethorpes Bluff 1/2 pas 7 pas 3 mile
Lake 5 minutes after 11 passed Beard Bluff at 12 arrived at
Fort James and took on board 5 cords of wood and at 4 left at 6
past Cranes Sand Bar at 7 passed Medlocks Landing 1/4 after
7 went through went through Mullet Reach 1/4 after 8
passed lower Sister Bluff passed upper Sister Bluff 11 minutes
after 9 passed Curtiss Ferry passed the mouth of the Ohoopee

at 11 Stopt at White Bluff for the night So Ends this 24 Hours

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Friday 16 Commences with clear pleasant weather at 1/4 of 5 Got up Steam & Started at 5 A M went through Coopers Reach at 1/2 past 6 passed Hell Shoals at 15 minutes after 9 passed Buck Horn Bluff at 10 passed Sharps Timber yard at 12 Stopt at Cobbs Creek & took on board some boards at 15 minutes of 1 left at 1/4 after 1 went through Adams Reach at 1/2 past 1 passed the Patten [illegible] at 10 minutes after 2 passed Blackmans Bluff at 15 minutes of 3 passed Inglis Bluff at 1/4 after 3 passed Williams Timber yard at 4 passed Hunts ferry at 15 minutes of 5 passed [illegible] Reach at 1/4 after 5 passed Half Moon Bluff at 5 arrived Safe at Town Bluff after a passage of ~~7~~ 3½ days from Darien So Ends our second [illegible] [illegible] So Ends this 24 Hours

---

Saturday 17 Commences with pleasant weather Commenced taking in Cotton and [illegible] at 7 A M finished loading So Ends this 24 Hours

---

Sunday 18 Commences with fine pleasant weather took on board Several Cows at 1/4 after 5 A M got up Steam and Started at 6 passed Half Moon Bluff at 1/2 past 10 A M Entered Manns Reach 21 miles from Town Bluff we are traveling 8 miles pr hour at 20 minutes past 11 past Cobbs Creek at 1/2 past 12 past boat Magnolia laying at Hell Shoals at 1 past upper end of Coopers Reach at 1/2 past 1 past White Bluff & the pole boat City of Darien at 20 minutes of 3 passed upper Sister Bluff at 1/2 past 3 ran aground on a Sand bar broke the [illegible] [illegible] but lucky for us the boat swung round and very little damage done hauled the boat along side again and went on again at 1/4 4 past Fort James at 5 passed [illegible] Bluff at 15 minutes of [illegible] went through Yankee Reach at 5 past Oglethorpe at 3 came to anchor at Chisolms island and waited for the tide at 5 we raised Steam & Started in company with the Steam boat [illegible] at 6 past Dover point and Entered Mosquito Creek at 25 min of 8 went through Bulls Cutt at 10 slept for the night at Stanns Bluff So Ends this 24 Hours.

Sunday. March. 1. 1831. Commences with mild pleasant weather at 7 AM raised Steam & Started at 25 mins past 7 past Mr Seabrooks plantation on Stans island at Walkers past White point and entered Watamalaw at 11 passed Mr Bennetts Plantation & went to go round the point and run on to an Oyster bank but it being flood tide we was a few minutes on the boat came off dropped back again a little distance and let go the anchor to wait for the tide at 5 PM Raised Steam & Started a 1/4 after 6 entered New Cutt got in a little way & grounded soon afterwards got off and proceeded on at 20 minutes after 7 got through the Cutt & Entered Church Flatts got over the flatts and proceeded on to Wappoo Cutt and anchored So Ends this 24 Hours

---

Monday 2nd 1831. Commences with fine pleasant weather at 8 AM Raised Steam & Started entered ~~[illegible]~~ Wappoo Cutt got through the Cutt and arrived safe at Charleston So Ends this 24 Hours

---

Tuesday 3d Commences with fine weather commence taking off So ends this Day

---

Wednesday 4th Commences with fine weather ~~took~~ finished taking our Cotton and took on board 300 Bushels of Salt So Ends this Day

---

Thursday 5th Commences with fine weather took on board 200 Bushels of Salt So ends this Day

---

Friday 6th fine pleasant weather So ends this 24 Hours

Monday 7th 1831. Commences with fine weather took on board Salt
So Ends this 24 Hours

Tuesday 8th Commences with fine weather took on board Several
thing So Ends this Day

Wednesday 9th Commences with Rainy weather could not do much
So ended this Day

Thursday 10 Commences with fine weather at 1 [illegible] Rain
Steam & Started for Savannah at 4 PM after I went through the tree
Cutt at 10 minutes after 4 passed beautifull house belonging to Mr
Middleton a 1/2 past 5 Entered Church flatts got in a little way
& grounded but could not get off remained there for the night
So Ends this 24 Hours

Friday Anniversary Set

OMNIA
Tokia 00000
B.B. Belong [illegible]

Friday 11 Commences with fine pleasant weather
J. Boston Massachusetts New Bedford Massachusetts

Friday 11 Commenced with fine pleasant weather magnificent
Stt Rowland Henry Rowland Henry Rowla

Fred Capt Fred Capt BOVAL Elbra
Patience and perseverance Bo Answorths

Let virtue and innocence accompany all your diversions
Let virtue and innocence accompany all your diversions
Let virtue and innocence accompany all your

Bombardment Baltimo
179 173 179 179 1799 175 175 175 BOSTO
Christianity & Popery Encusa

Henry Howland Alfred Howland Sarah How

Henry Howland Alfred M Howland Laus†

Al 125

Grela Poga

Grela

New Bedford January 5th 1838

Recd of Joseph Howland one Hundred fifty one dollars thirty three cents in full of all demands against the Sloop Eliza Nivell & being the amount of my wages from 26th April 1837 to 14 Decm 1837 being 7 Months 17 Days @ $20 pr Mo $151 33

Samuel R Howard

A man having 100 Dolls wished to purchase 100 Animals consisting of Sheep Geese and Oxen for the oxen he was to give 10 Dolls a piece for the Sheep 1 Doll a piece for the Geese 2 for a Doll an Answer is required

		$		$
Oxen	3 ×	10	=	30
Sheep	43 ×	1	=	43
Geese	54 ×	½	=	27
	100			100

A man having 8 Galls of Wine enclosed in 2 Kegs Containing 5 and 3 Galls wished to divide it equally between two men with no other assistance than the 8 5 and 3 Gall Kegs An answer is required

what 4 Nines will make 100

Duodecimals.

What is the government Tonnage of a double decked vessell of the following dimensions; Length 75 Feet 0 inches Breadth $\overset{\text{feet}}{23}$ - $\overset{\text{in}}{4}$ inches Depth $\overset{\text{feet}}{11}$ " 8 inches

feet in
75 " 0
14 " 0 for $\frac{3}{5}$ Breadth
61 " 0
23 " 4 breadth
183
inches 122
6 ½ — 11 " 6
3 ½ — 20 " 6
1435 · 0
11 " 8 Depth
inches 15785 " 0
6 ½ — 717 " 6
2 ⅓ — 239 " 2
95) 16741 " 8 (Tons 170 $\frac{21}{95}$ Answer
95
724
665
591
570
21
95

2. What is the government Tonnage of a double decked vessell of the following dimensions Length $\overset{\text{feet}}{82}$ " $\overset{\text{inches}}{3}$ Breadth 24 Feet 3 inches Depth 12 feet $\overset{\text{inches}}{1\frac{1}{2}}$

feet in tw
82 " 3 " 0
14 " 6 " 7
67 " 8 " 5
24 " 3 " 0
284 " 16 " 10
134 " 0 " 0
16 " 10 " 1
1642 " 2 " 11
12 " 1 " 6
19714 " 3 " 11
136 " 10 " 2
67 " 8 " 9
95) 19918 " 10 " 10 (209 $\frac{63}{95}$. Answer
190
918
855
63
95

Duodecimals.

What will the above Tonnage amount to at 16 Dollars per ton

158
16
948
158
2528
2,18
$2530,18 Answer

16
13
48
16
95)208(2.18
190
180
95
850
760
90

Required the tonnage of a Ship 74 Feet Keel and 26 feet 6 inches beam

feet
74
26"6
1924
37
1961
13"3
25493"0
490"3
95)25983"3(273 48/95 Tons Answer
190
698
665
333
285
48
95

What is the government tonnage of a single Decked vessell whose length is 69 feet 6 inches breadth 22"6 feet in Depth 8"6 feet inches

feet in
69"6
Deduct 13"6 for 3/5 Breadth
56"0
22"6 breadth
112"0
inches 112"0
6 1/2 28"0
1260"0
8"6 Depth
inches 10080"0
6 1/2 630"0
95)10710"0(112 70/95 Tons Answer
95
121
95
260
190
70

Duodecimals

A merchant after having contracted with a carpenter to build a single decked vessell of 60 feet keel 20 feet beam and 8 feet hold desires that the deck be laid out for 10 Feet Hold required the tonnage to be paid for

60 Length
20 breadth
1200
9
95) 10800 ($113\frac{65}{95}$ Tons Answer
95
130
95
350
285
65
95

For a double decked vessell take half the breadth of the main beam for the depth of the Hold and work as for a single decked vessell.

Examples

What is the tonnage of a doubled decked vessell whose length is 65 feet and breadth Feet 21.. in 6

Feet in
65.. 0
21.. 6
65
130
32.. 6
1397.. 6
10.. 9
13975.. 0
1048.. 1
95) 15023.. 7 ($158\frac{13}{95}$ Answer
95
552
475
773
760
13
95

Duodecimals

What is the fraight of a bale containing 65 feet 9 inches at 15 Dolls per ton of 40 feet

ft		Dolls cents
		15.00,0 for 40 feet
20	½	7.50,0
5	¼	1.87,5
6	$\frac{1}{10}$	18.7
3	½	09.3
		$24.04.5

A merchant imports from London 6 bales of the following dimensions viz.

Length ft in	Heigth ft in	Depth ft in
2..10	2..04	1..09
2..10	2..06	1..03
3..00	2..02	1..08
2..10	2..08	1..03
2..10	2..06	1..09
2..11	2..08	1..08

which are the solid contents and whats will the freight amount to at $20 per ton

ft in
11..07
8..10
12..07
13..02
12..05
13..00
71..07

Feet
71.58
20
40)1431.60
$35.79 Cts Answer

To find Ships tonnage by carpenters measure. Rule. For single decked vessell multiply the lenght breadth ~~and~~ ~~depth~~ at the main beam the depth of the Hold together and the product by 95

Examples

What is the tonnage of a single decked vessell whose Lenght is 60 feet breadth 20 Feet and Depth 8 Feet

60
20
1200
8
95)9600(101 $\frac{5}{95}$ Answer
95
100
95
5
95

Duodecimals

If a house measure within the walls $\overset{ft}{52}$ " $\overset{in}{8}$ in length and $\overset{ft}{30}$ " $\overset{in}{6}$ in breadth and the roof be of a true pitch or the the rafters $\frac{3}{4}$ of the breadth of the building what will its roofing come to at $\overset{s}{10}$ " $\overset{d}{6}$ per square of 100 feet.

Feet in tw
52 " 8 " 6
22 " 10 " 6
1153 " 6 " 0
44 " 10 " 8
2 " 2 " 4
1200 " 7 " 0
2
Feet 2401 " 2 " 0

Feet s d
100 : 10 " 6 : :
12 12
1200 126

12
28814
126
172884
57628
28814
1200 | 36305,64
12 | 3025 " 5
20 | 252 " 11 " 3/4
12 " 12 " 11 3/4 Answer

Application of Duodecimals

To find how many cubic or solid square feet in order to ascertain the freight are contained in bales &c that is how many cubic feet they will take up in a ship.

Examples

1. Suppose the dimensions of a bale to be 7 feet 6 inches 3 feet 3 inches and 1 feet 11 inches what is the solid content

Feet in
7 " 6
3 " 3
22 " 6 " 0
1 " 10 " 6
24 " 4 " 6
21 " 3 "
20 " 3 " 9
24 " 4 " 6
44 " 8 " 3 Answer

Duodecimals

Examples

1. Multiply 4 feet 9 inches by 8 inches

ft in
4" 9
8
3" 2 Answer

3. What is the price of a marble slab whose length is ft in 5" 7 and breadth ft in 1" 10 at one dollar per foot.

ft in
5" 7
1" 10
4" 7" 10
5" 7" 0
10" 2" 10
12
122
12
1474

ft d
1 : 14 : :
12
12
12
144

$ Ct m
144)1474(10, 23 0 Answer
144
34
100 Ct
144)3400(23
288
520
432
88
10 m
144)880(6
864
10

2. Multiply ft in 9" 6 by 4 feet 9 inches

ft in
9" 6
4" 9
7" 1" 6
38" 0" 0/12 of an inch
45" 1" 6/12 of an inch Answer

There is a house with 3 tiers of windows and 3 tiers of windows and in a row The height of the first tier is ft in 7" 10 of the second is ft in 6" 8 third ft in 5" 4 the breadth of each is ft in 3" 11 what will the glazing come to at 14d per foot.

ft in
7" 10
3" 11
7" 2" 2
23" 6" 0
30" 8" 2
3
92" 0" 6
78" 4" 0
62" 8" 0
233" 0" 6

ft in
6" 8
3" 11
6" 1" 4
20" 0" 0
26" 1" 4
3
78" 4" 0

ft
5" 4
3" 11
4" 10
16" 0" 0
20" 10" 8
3
62" 8" 0

ft d ft in twelfths
1 : 14 : : 233" 0" 6
12 12
12 2796
12 12
144 33558
14
134232
33558
144)469812((12)3262
432 (20)271" 10 ½
372 13" 11" 10 ½
288
901
864
372
288
84

Biquadrate Root

What is the Biquadrate Root of 5719140625

```
             5719140625 ( 75492
             49
      145 ) 819
            745
     1504 ) 7414
            6016
   15089 ) 139806
           135801
  150982 )    400525
              301964
               98561

                          75492 ( 275 Answ
                          4
                     47 ) 354
                          329
                    545 ) 2592
                          2592
```

Duodecimals

Duodecimals or cross multiplication is a rule made use of by in measuring an computing the dimensions of the several parts of buildings it is likewise u ed to find ships tonnage and the contents of bales cases &c

Dimensions are taken in feet inches and parts

Artificers work is computed by different measures viz.

Glazing and masons work flat by the foot.

Painting paving plastering by the yard.

Partitioning flooring roofing tiling &c by the square of 100 feet

Brickwork &c by the rod of 16½ feet whose square is 272¼ feet

The contents of bales cases &c by the 40 cubic feet

The tonnage of ships by the ton of 95 feet

Rule for multiplying Duodecim lly

1. Under the [illegible] multiplicand write the corresponding denominations of the multiplier. 2 Multiply each term in the multiplicand beginning at the lowest by the ft in the multiplier write each result under each respective term observing to carry an unit from each lower denominator to its superior In the same manner multiply the multiply the multiplicand by the inches in ches in the multiplier and write the result of each term one place more to the right.

Biquadrate Root

76
76
456
532
5776
76
34656
40432
438976
76
2633856
3872832
33362176 Ans

What is the Biquadrate of 275
275
1375
1925
550
75625
275
378125
529375
151250
20786875
275
103984375
145578125
41593750
5719140625 Answer

What is the Biquadrate Root of 531441 Answer 27

531441(729(27 Answer
49
145/414
280
1449/12841
11584
1257

4
47/329
329

What is the Biquadrate Root of 33362176

33362176(5776(Ans 76 Answer
25
107) 836
749
1147) 8721
8029
11546) 69276
69276

49
146) 876
876

Cube Root

The cube root of the solid content of any solid body given is the side of the cube of equal solidity

If the solid content of a globe is 10648 what is the side of a cube of equal solidity

```
2·2·2 = 8 · 10648( 22 Answer
              8
       =12) 2648
    2·2·2 =   08
  2·3·4 = 24
   2·12 = 24
          2648
```

Extraction of the Biquadrate Root

To extract the cube root is to find out a number which being inv
lved 4 times into itself will produce the biquadrate Root requi

What is the Biquadrate of 27

```
      27
      27
     189
     54
     729
      27
    5103
   1458
   19683
      27
  137781
  39366
  531441 Answer
```

What is the biquadrate of 76

Cube Root

If a cubical piece of timber be 47 inches 47 inches broad and 47 inches deep how many cubical inches does it contain

47
47
329
188
2209
47
15463
8836
103823 Ans

There is a cellar dug that is 12 feet every way how many solid feet of earth were taken out

12
12
144
12
1728 Ans

Rule. Divide the greater extreme by the lesser and the cube root of the quotient multiplied by the lesser gives the lesser mean multiply the said cube root by the lesser mean and the product will be the greater mean proportional

Examples

What are the two mean proportionals between 6 and 162 Answer 18 an 54

6/162
3·3·3 = 27 (3
27 (6
18
3
18 and 54 Answer

What are the two mean proportionals between 4 and 108 Answer 12 & 36

4/108
3·3·3 27 (3
27 (4
12
3
12 and 36

Cube Root

Surds

What is the cube root of 7 +

5/36000000
1+1+1= 7 200000 (193+ Answer
1
1+1+3= 3/6200
9+9+9----721
1+3+81 243
3+9---27
5841
/349000
3+3+3=----27
19+3+9---513
1088+3=--3249
030017
18943

What is the cube root of 9+6

6/5500000000000
2+2+2= 9166666666
8
2+2+3=12/1166666
9+9+3 ----243
20+3+9-----540
12+9----108
16443
209+209+3--- =331045/9523666
2+2+2 ----- 08
209+3+4---2508
131043+2--262086
26233088
68583378

The Application

Cube Root

What is the cube root of $\frac{5}{9}$ Answer, 822+

9/5.000000000
8+8+8= ,555555555 (,822+
512
8+8+3=192 | 43555
2+2+2= 08
8+3+4= 96
192+2 384
39368
82+82+3= 20172 | 4187555
2+2+2= 08
2+3+4= =984
20172+2 40344
4044248
143307

What is the cube root of $\frac{2}{3}$

3/2.000000000
8+8+8= ,66666666 (873+ Answer
512
8+8+3 = 192 | 154666
7+7+7= 343
8+3+49= 1176
192+7=1344
87+87+3 146503
22707 | 8163666
3+3+3= 27
87+3+9 2349
22707+3 68121
6835617
1328049

What is the cube root of $12\frac{19}{27}$

$12\frac{19}{27}$
27
103
24
$\frac{343}{27}$ ($\frac{7}{3}$ $2\frac{1}{3}$ Answer

What is the cube root of $31\frac{15}{343}$

$31\frac{15}{343}$
343
102
124
93
$\frac{10648}{343}$ ($\frac{22}{7}$ $3\frac{1}{7}$ Answer

What is the cube root of $405\frac{28}{125}$

$405\frac{28}{125}$
125
2025
810
405
$\frac{50653}{125}$ ($\frac{37}{5}$ $7\frac{2}{5}$ Answer

Cube Root

To extract the cube root of a vulgar fraction

Rule. Reduce the fractions to its lowest terms then extract the cube root of the numerator and denomination for a new numerator and denominator but if the fraction be a surd reduce its to a decimal and then extract the root from

Examples

What is the cube roots of $\frac{250}{680}$

2 | $\frac{250}{686}$ $\frac{125}{343}$ 5+5+5=125 / 125 (5 7+7+7=343 / 343 (7 Ans $\frac{5}{7}$

What is the cube root $\frac{324}{1500}$

12 | $\frac{324}{1500}$ $\frac{27}{125}$ 3+3+3=27 / 27 (3 / 0 5+5+5=125 / 125 (5 / 0

What is the cube of $\frac{1520}{5130}$ Ans $\frac{2}{3}$

190 | $\frac{1520}{5130}$ $\frac{8}{27}$

2+2+2 = 8 / 8 ($\frac{2}{3}$ Ans

3+3+3 = 27 / 27 (3

Surds.

What is the cube root of $\frac{4}{7}$ Answer ,829+

7 | 4.0000000000

8+8+8 = ,571428571 (829 Answer

512

8+8+3 .... 192 | 59428

2+2+2 ---- 08

8+3+4 -- 96

192+2 -- 384

39368

82+82+3 ---- 20172 | 20060571

9+9+9 ---- 729

82+3+81 ---- 19926

20172+9 -- 185548

18754781

1305790

Cube Root

What is the cube root of 36155027576 Answer 33,06+

3+3+3 = 36155,027576 (33,06+ Answer
27
3+3+3 27/1155
3+3+3 27
3+3+9 = = 81
27+3 = = 81
8937
330+330+3 = 326700/218027576
6+6+6 = 216
330+3+36 35640
326700+6 = 1960200
19837816
21650950

What is the cube root of ,001906624 Answer ,124

1+1+1 = ,001906624 (,124
1
1+1+3 = 3/906
2+2+2 = = 08
1+3+4 = = 12
3+2 6
728
12+12+3 432/178624
4+4+4 ---- 64
12+3+16 = = = 576
432+4 --- 1728
178624

What is the cube root of 33,230979637 Answer 3,215

3+3+3 = 33.230979637 (3,215+ Ans
27
3+3+3 27/6230
2+2+2 08
3+3+4 36
27+2 54
5768
32+32+3 = 3072 /432979
1+1+1 = ---- 01
32+3+1 = = -- 96
3072+1 3072
308101
321+321+3 309123/124818637
5+5+5 125
321+3+25 ---- 24075
3072+5 ---- 15360
1876875
122941762

Cube Root

What is the cube root of 122615327232 Answer 4968
4 + 4 + 4 = 122615327232 (4968 Answer
64
1 + 4 + 3 = 48) 58615
9 + 9 + 9 ---- 729
4 + 3 + 81 972
48 + 9 -- 432
53649
49 + 49 + 3 == 7203) 4966327
6 + 6 + 6 ---- 216
49 + 3 + 36 5292
7203 + 6 ----43218
4374936
8 +
73848) 591391232
8 + 8 + 8 ---- 512
496 + 3 + 64 95232
738048 + 8 ---5904384
591391233

What is the cube root of 219365327791
6 + 6 + 6 --219365327791 (6031
216
6 + 6 + 3 = =108) 3365327
3 + 3 + 93 = 27
60 + 3 + 9 - 1620
108 + 3 ---- ..324
48627
331 0827 (3318700791
1 + 1 + 1 ---- 01
603 + 3 + 1 - . 1809
3316827 + 1301868827
3318700791

What is the cube root of 12,977875 Answer 1235
2 + 2 + 2 = 12,977875 (2,35
8
2 + 2 + 3 = 12 (4977
3 + 3 + 3 27
2 + 3 + 9 = = 54
3 + 12 = - 36
4157
23 + 23 + 3 1187 (810875
5 + 5 + 5 = = 125
13 + 3 + 25 1725
1187 + 5 ==7935
810875

Cube Root.

What is the cube root of 48228544 Answer 364

3×3×3 = 48228544 (364 Answer
27
3×3×3 = 27 | 21228
6×6×6 = = 216
3×3×36 = 324
27×6 = 162
19656
3888 | 1572544
4×4×4 = = 64
36×3×16 = 1728
3888× 4 = 15552
1572544

What is the cube root of 27054036008 Answer 3008

3×3×3 = 27054036008 (3008 Answer
27
300×000×3×270000 | 054036008
2×2×2 = = 08
300×3×4 = = 3600
270000×2 = = 540000
054036008

What is the cube root of 22059810125 Answer 2805

2×2×2 = 22069810125 (2805 Ans
8
2×2#3 = 12 | 14069
8×8×8 — 512
2×3#64 — 384
8×12 — 96
13952
280×280×3 — 235200 | 00117810125
5×5×5 = — 125
280×3×25 — 21000
235×200×5 117600
00117810125

Cube Root.

What is the cube root of 32461759 Answer 319

32461759 (319 Ans
3 × 3 × 3 = 27
27) 5461
1 × 1 × 1 = 1
3 × 3 × 1 = 9
27 × 1 = 27
2791
31 × 31 × 3 = 2883) 2670759
9 × 9 × 9 = 729
31 × 3 × 81 = 7533
2883 × 9 = 25947
2670759

What is the cube root of 84604519 Answer 439

4 × 4 × 4 = 84604519 (439 Ans
64
4 × 4 × 3 = 48) 20604
3 × 3 × 3 = 27
4 × 3 × 9 108
48 × 3 = 144
15507
43 × 43 × 3 5547) 5097519
9 × 9 × 9 = 729
43 × 43 × 81 = 10449
5547 × 9 = 49923
5097519

What is the cube root of 259694072 Answer 638
6 × 6 × 6 = 259694072 (638 Answer
216
6 × 6 × 3 = 108) 43694
3 × 3 × 3 = 27
6 × 3 × 9 = 162
108 × 3 = 324
34047
63 × 63 × 3 = 11907) 9647072
8 × 8 × 8 = 512
63 × 3 × 64 = 12096
11907 × 8 = 95256
9647072

Error Square Root

Cube Root.

Point every third figure of the cube given beginning at the units place ; seek the greatest cube to the first point and subtract it therefrom put the root in the quotient and bring down the next point to the remainder for a resolvend.

2d Find a divisor by multiplying the square of the quotient by 3. See how often it is contained in the resolvend rejecting the units & tens and put the answer in the quotient

Examples

Q. What is the cube root of 389017. Answer 73.

```
                  3̇89̇017̇ ( 73
      7 × 7 × 7 =  343
7 + 7 × 49 × 3 = 147 ) 46017
                         27
                      189
                     441
                     46017
```

What is the cube root of 5735339

```
                     5735339 ( 179 Answer
                     1
1 × 1 × 3 = 3 )      4735
        7×7×7 =      343
    1×3×49 = 1      47
        3×7 =      21
                    3913
17 × 17 × 3 = 867 ) 822339
9 × 9 × 9 =            729
17 × 3 × 81 =      4131
                   7803
                   822339
```

Square Root

The wall of a town is 25 feet high which is surrounded by a moat 30 fe in breadth; I desire to know the length of a ladder that will reach from the outside of the moat to the top of the castle

25
25
125
50
625
900 feet
1525 (39.05 Answer
9
69) 625
621
400
780)
40000
7805) 39025
975

The wall hypothenuse and perpendicular given to find the base

Rule. The square root of the diffence of the square root of the diffence of the squares of the hypothenuse and perpendicular is lenghth of the base.

The base and hypothenuse given to fin the perpendicular

Rule. The square root of the difference of the hypothenuse and base is the height of of the perpendicular

An army consisting of 33176 men i desire to know how many in rank and file

3'3'1'7'6' (576 men Ans
25
817
749
6876
6876

A certain square root contains 48841 square stones all of the same size I deman how many are contained in one of the sides

4'88'41' (221 Stones Ans
4
42) 88
84
441) 441
441

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